

Chapter 4 : " Advanced Information "

This chapter describes more information about your Disk Array. The following items are describes in detail.

- Memory Expansion
- RAID Controller
- Updating Firmware

Memory Expansion

Your Disk Array comes with 16MB of memory that is expandable to a total of 128MB by installing additional memory modules. The optional memory expansion socket is provided for installing memory module. These expansion memory module can be purchased from your dealer.

- Memory Type : 60NS Extended Data Output (EDO) SIMMs .
- Memory Size : Supports 72pin SIMMs of 4MB, 8MB, 16MB, 32MB, 64MB or 128MB.

The main-board supports many memory combinations for a total of up to 128MB. Memory sizes are arrived at by inserting different combinations of SIMM DRAM modules into the RAM sockets. The RAM sockets are numbered SIMM 1 and SIMM 2. The disk array controller will automatically detect the amount of memory installed without any jumper settings needing to be set. The following table are the possible configurations.

SIMM 1	SIMM 2	TOTAL MEMORY
16	16	32
32	0	32
32	32	64
64	0	64
64	64	128
128	0	128

Do not use SIMM modules which have an extra logic chip that has been used to convert the memory module from asymmetric to symmetric.

SIMM Memory Size (MB)	4 / 16 / 64	8 / 32 / 128
SIMM Memory Type	Single Side	Double Side

- Installing Memory Modules :

1. Unscrew & Remove cover

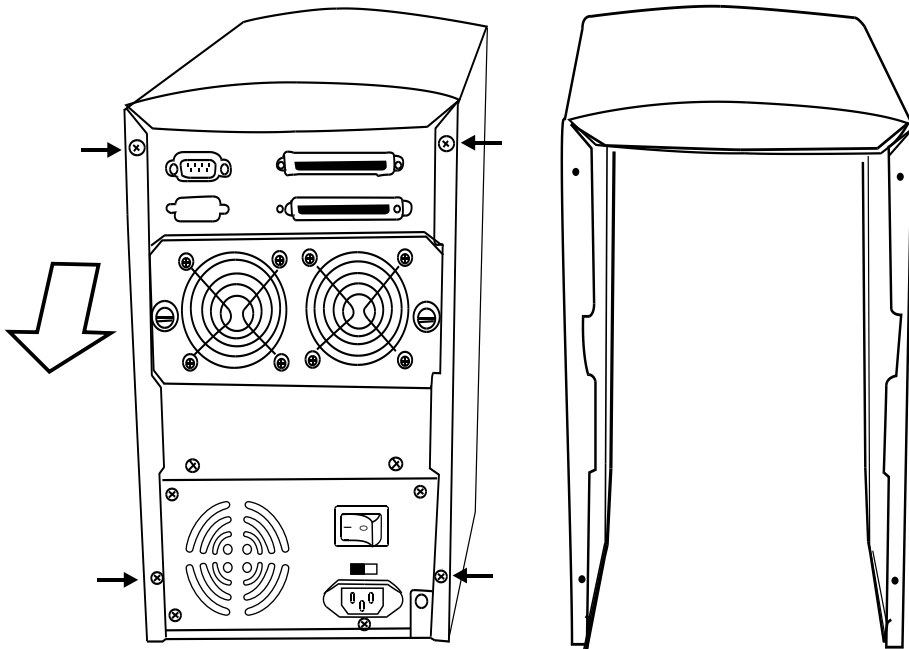


Figure : Remove Cover

2. Install the memory

- The SIMM memory modules will only fit in one orientation.
- Press the memory module firmly into socket from a 45 degree angle, make sure that all the contacts are aligned with the socket.
- Push the memory module forward to a vertical position.

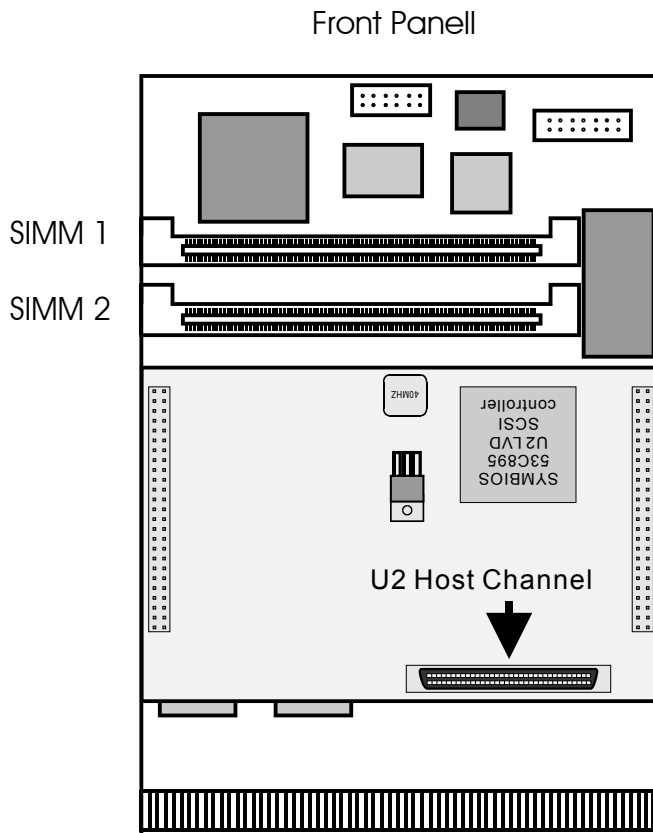
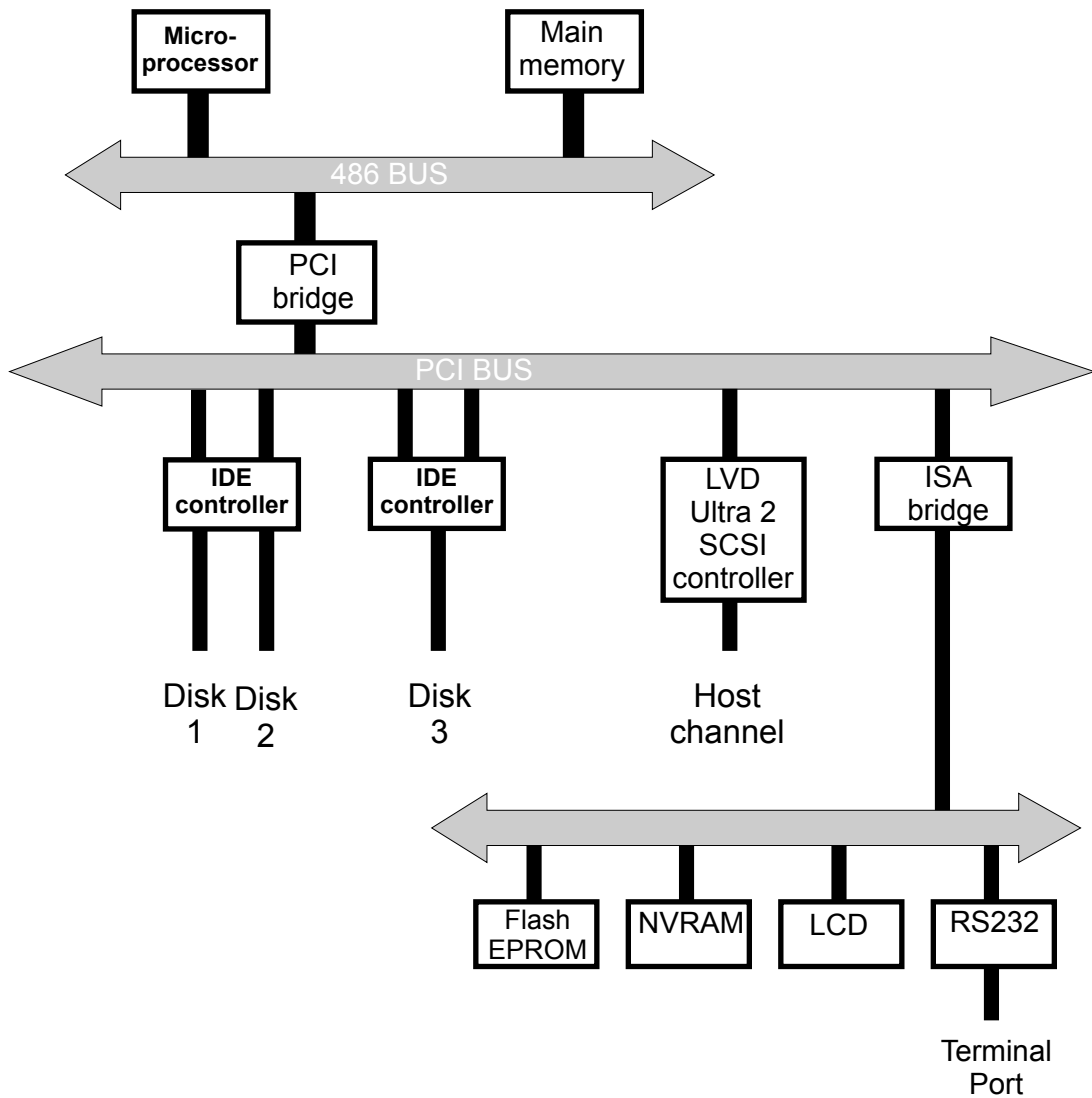


Figure : Controller

Disk Array Controller Block Diagram



Updating Firmware

1. Setup your VT100 Terminal

Please configure the VT100 terminal setting to the values shown below :

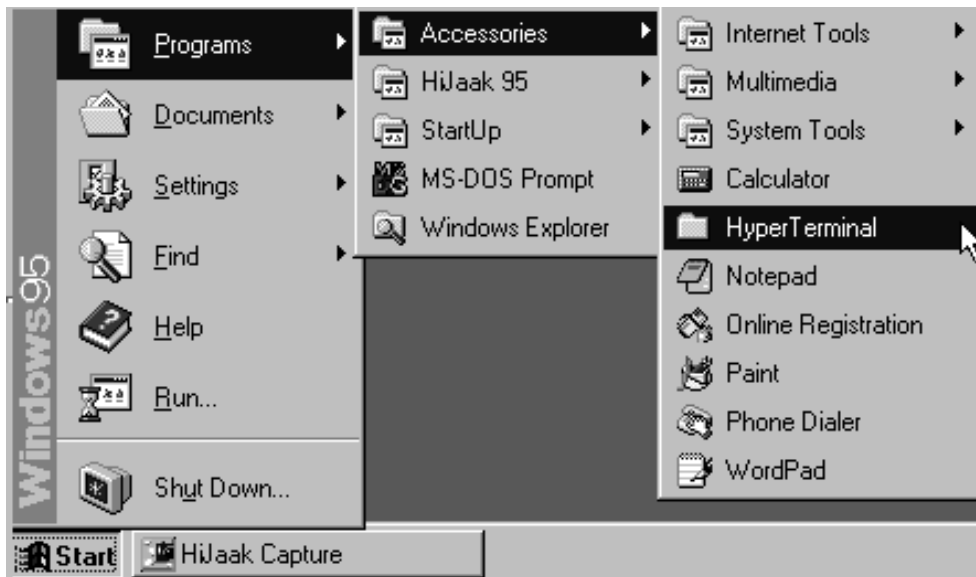
VT100 terminal (or compatible) set up

Connection	Serial Port (COM1 or COM2)
Protocol	RS232 (Asynchronous)
Cabling	Null-Modem cable
Baud Rate	19,200
Data Bits	8
Stop Bit	1
Parity	None

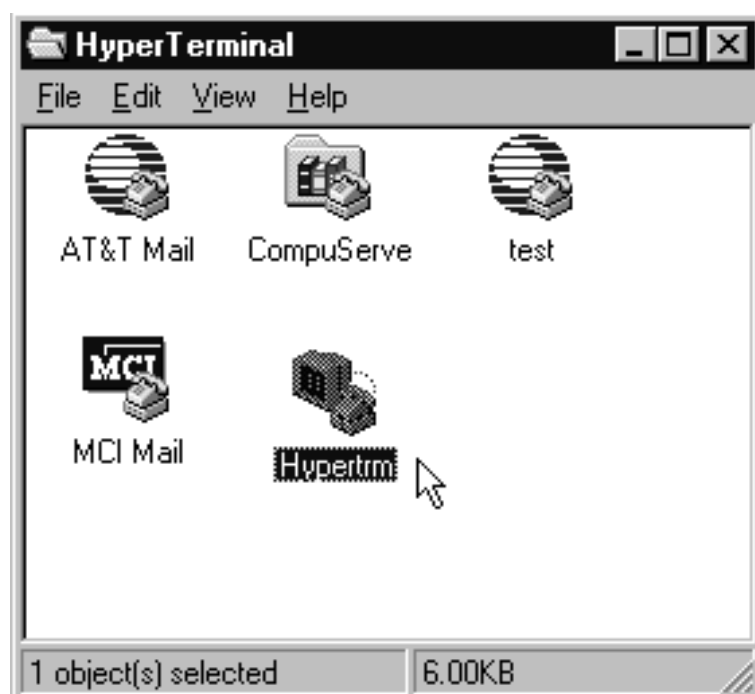
Setup VT100 Terminal

Example : Setup VT100 Terminal in Windows® 95

Step 1.



Step 2.



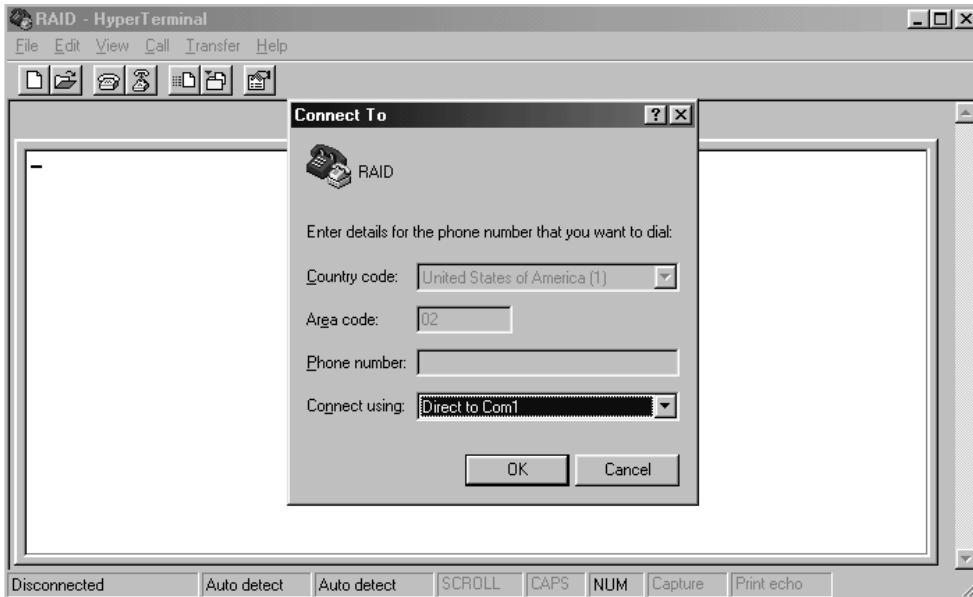
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Step 3. Enter a name for your Terminal.

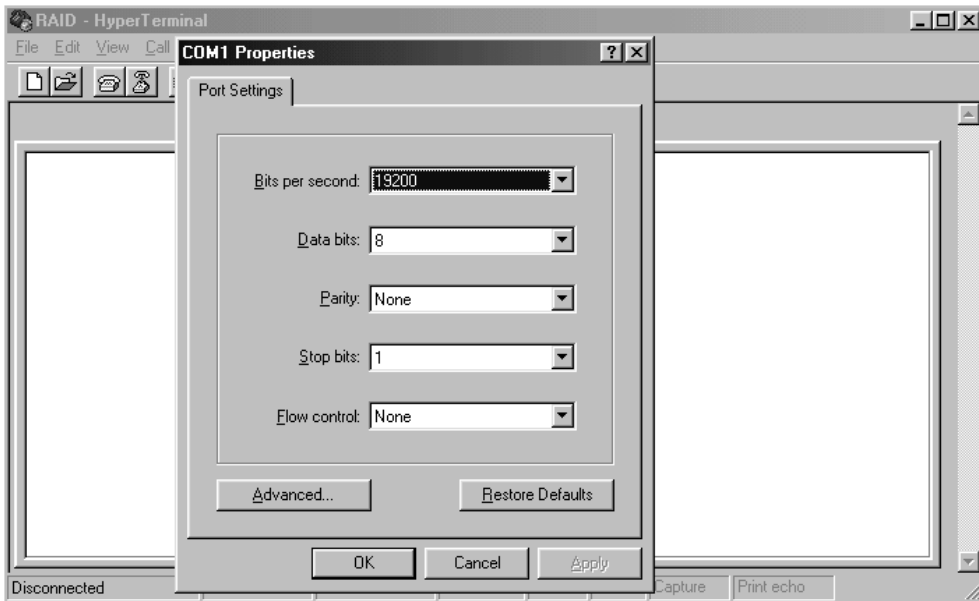


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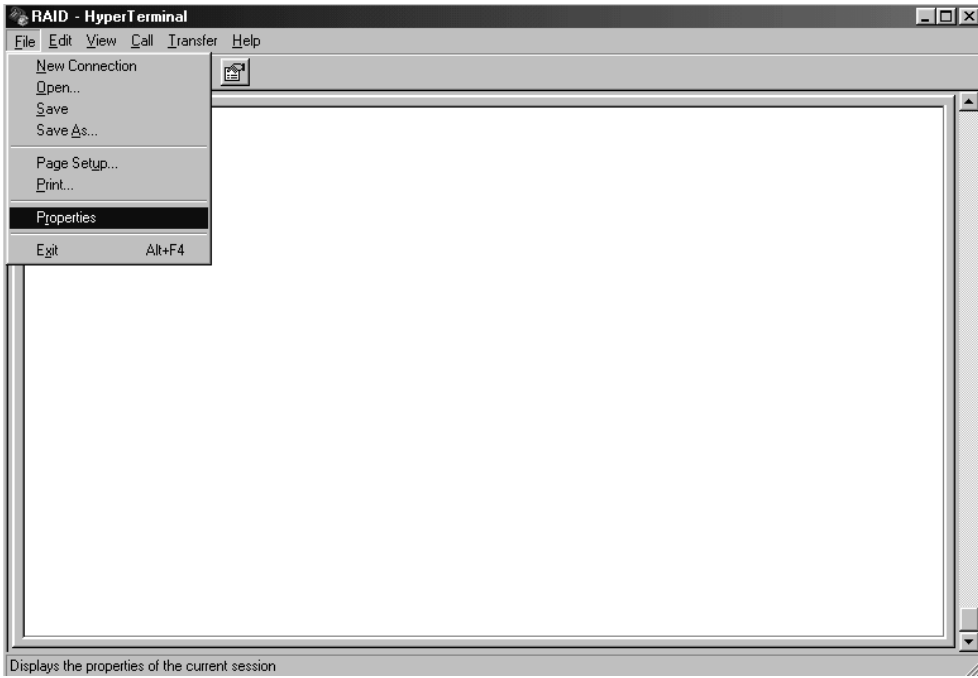
Step 4. Select a connecting port in your Terminal.



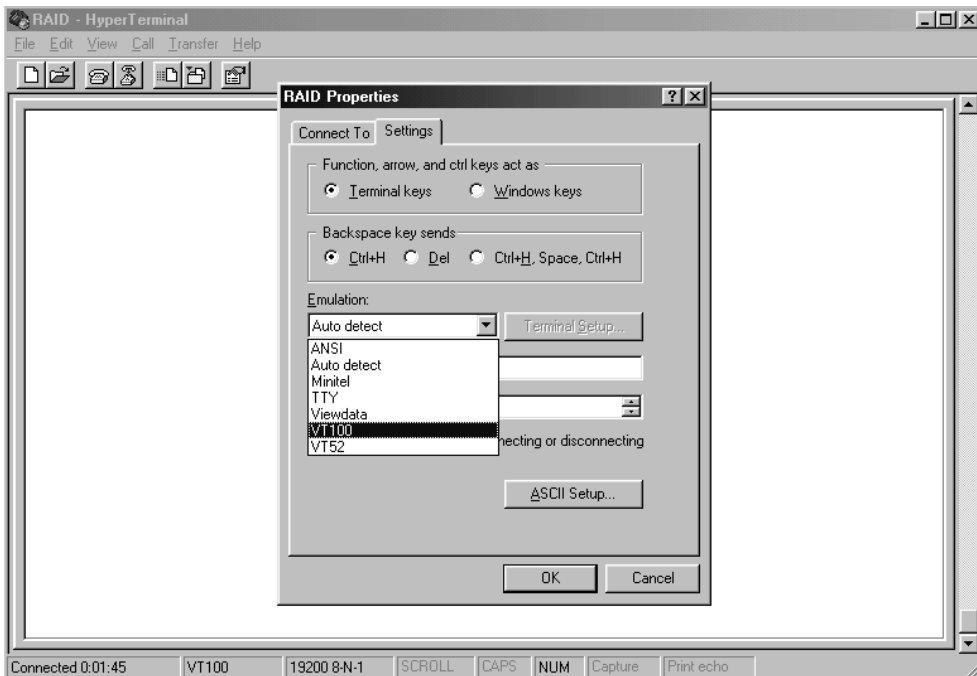
Step 5. Port parameter settings



Step 6.



Step 7. Select emulate VT100 mode



After you have finished the VT100 Terminal setup, you may restart your Disk Array and press " Ctrl + D " keys (in your Terminal)to link the Disk Array and Terminal together.

Press Ctrl + D to display the disk array Monitor Utility screen on your VT100 Terminal.

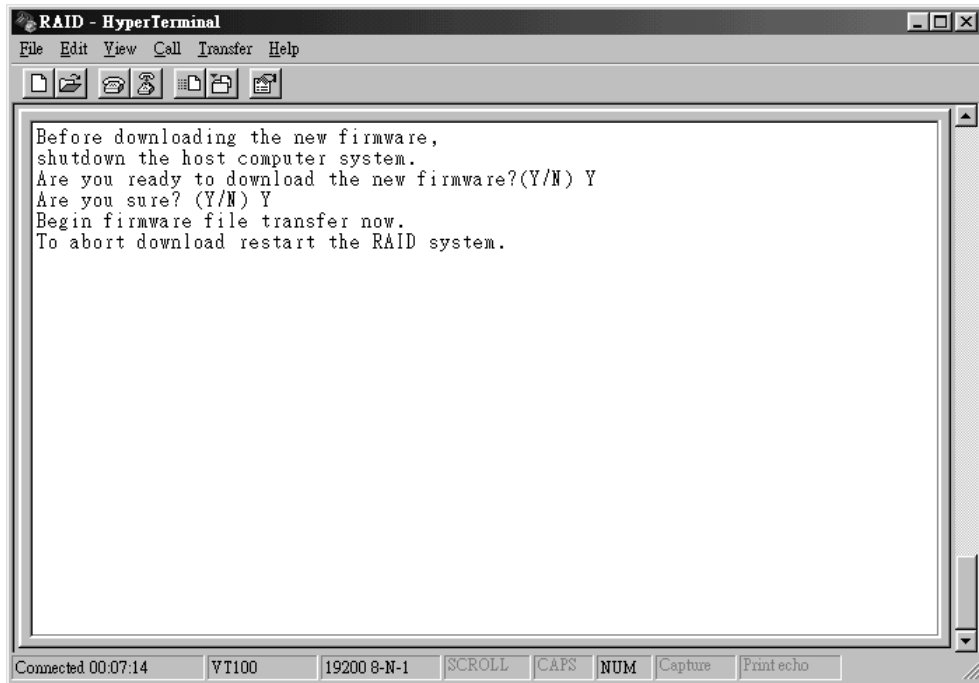
-
- RAID - HyperTerminal
- File Edit View Call Transfer Help
- Monitor Utility v2.3N
- ```

+-----+
|----- LCD -----+----- OUTPUT -----|
|
| No Configuration | Disk Array Controller | #
|----- MENU -----+-----|Version 2.3N 05/23/2000 | #
|+--Main Menu--+ |Serial No: 000004282000002 | #
| |Re-Config RAID| |Testing Serial Connection...OK | #
| |RAID Level | |Installed Memory = 16MBytes | #
| |Set SCSI ID | |Add On SCSI 895 found | #
| |Termination | |Host Chan 1: TEST OK | #
| |Set Password | |SCSI bus Reset ! | #
| |Save & Restart| |Testing disk connection 1 OK. | #
| |Update ROM | |Testing disk connection 3 2 OK. | #
|+-----+ |Use LBA Mode | #
| | |DISK: #1 ST38421A | #
| | | | (C,H,S,M) = (16368, 16, 63, 16) | #
| | |DISK: #3 ST38421A | #
| | | | (C,H,S,M) = (16368, 16, 63, 16) | #
| | |DISK: #2 ST38421A | #
| | | | (C,H,S,M) = (16368, 16, 63, 16) | #
| | |Use NVRAM config info. | #
| | |RAID not configured! | #
| | |Hot-Plug function ready. | #
+-----+

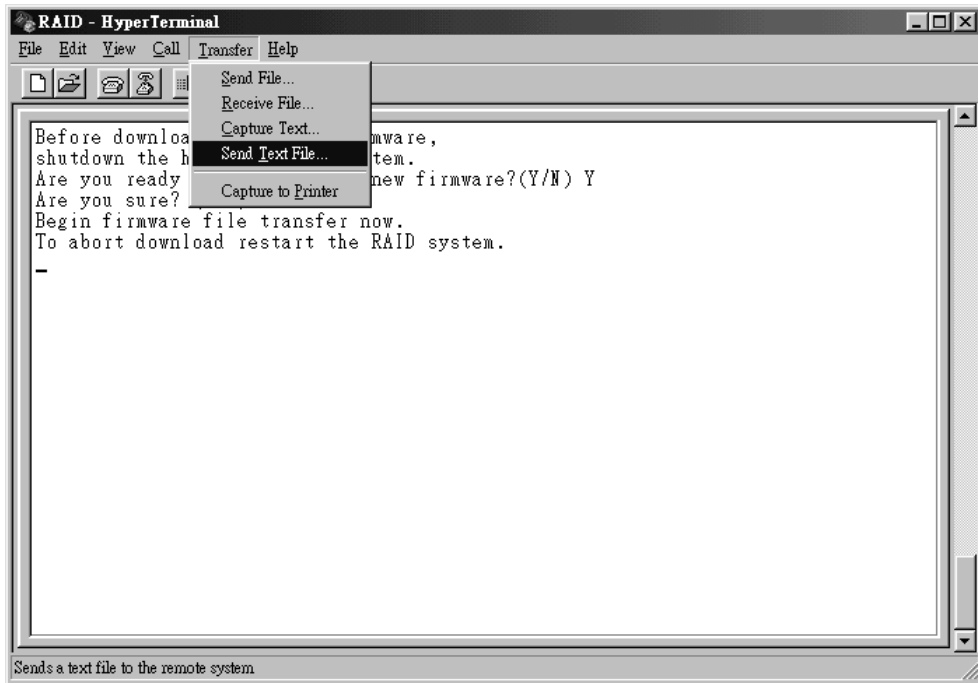
```
- Move Cursor:AZSX, Tab:Switch to Menu Area
- Connected 0:00:18 VT100 19200 8-N-1 [SCROLL] [CAPS] [NUM] [Capture] [Print echo]

Unpredictable results will occur if firmware update is attempted during Host computer and Disk Array activity. All activity to the controller should be stopped before updating firmware.

2. Press "Y" to confirm the Update.



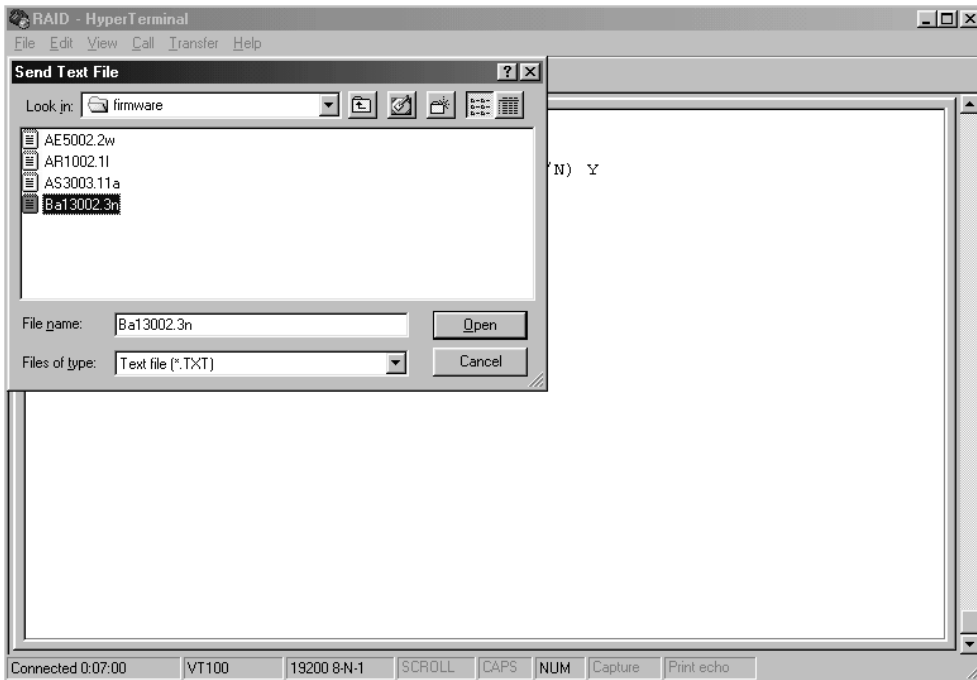
3. Select transfer " **Send Text File** " and press Enter.





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4. Locate the new Firmware file on your PC.

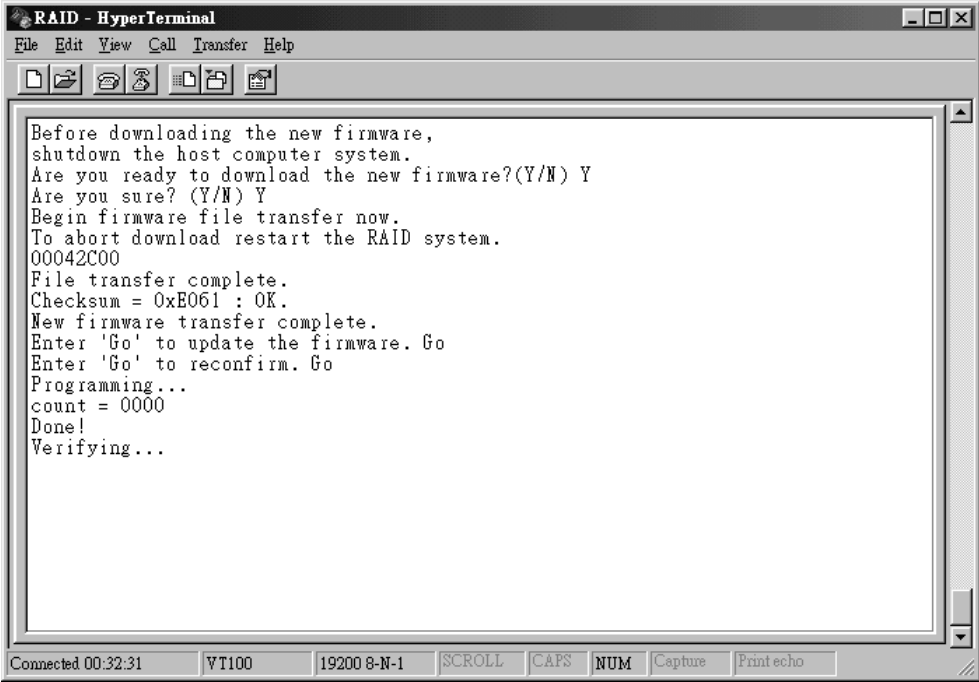


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5. Press "Y" to confirm to download the new firmware  
and type "Go" to confirm the new firmware update.



6. Type " **Go** " to reconfirm and the firmware will begin to be reprogrammed.
7. After verifying, please **restart the Disk Array** to activate the new firmware.



```
RAID - HyperTerminal
File Edit View Call Transfer Help

Before downloading the new firmware,
shutdown the host computer system.
Are you ready to download the new firmware?(Y/N) Y
Are you sure? (Y/N) Y
Begin firmware file transfer now.
To abort download restart the RAID system.
00042C00
File transfer complete.
Checksum = 0xE061 : OK.
New firmware transfer complete.
Enter 'Go' to update the firmware. Go
Enter 'Go' to reconfirm. Go
Programming...
count = 0000
Done!
Verifying...
```

Connected 00:32:31 VT100 19200 8-N-1 SCROLL CAPS NUM Capture Print echo